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KPanell

Attorney Docket No. 0756-2061

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Patent Application of:
Yasuhiro TAKEMURA
Serial No. 09/453,586
Filed: December 3, 1999
For: ELECTRO-OPTICAL DEVICE AND
METHOD OF DRIVING AND
MANUFACTURING THE SAME

-) Group Art Unit: 2673
) Examiner: J. Nguyen
) CERTIFICATE OF MAILING
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) P.O. Box 1450, Alexandria, VA 22313-1450, on
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RESPONSE

Honorable Commissioner of Patents
P.O. Box 1450
Alexandria, VA 22313-1450

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Technology Center 2600

Sir:

The Official Action mailed July 24, 2003, has been received and its contents carefully noted. A *Notice of Appeal* was filed January 26, 2004, with a *Request for Three Month Extension of Time*. Filed concurrently herewith is a *Request for Continued Examination* and a *Request for Four Month Extension of Time*, which extends the shortened statutory period for response to July 24, 2004. Accordingly, the Applicant respectfully submits that this response is being timely filed.

The Applicant notes with appreciation the consideration of the Information Disclosure Statements filed on December 3, 1999, February 29, 2000, October 25, 2000, October 31, 2000, September 7, 2001, November 30, 2001, March 7, 2002, May 6, 2002, November 8, 2002, and July 7, 2003. The Applicant notes that a further IDS was filed on December 4, 2003, and a further IDS is filed concurrently herewith. The Applicant respectfully requests that the Examiner provide an initialed copy of the Form PTO-1449 evidencing consideration of the IDS filed December 4, 2003, and the concurrently filed IDS.

Claims 1-68 are pending in the present application, of which claims 1-48 are independent. For the reasons set forth in detail below, all claims are believed to be in condition for allowance. Favorable reconsideration is requested.

Paragraph 4 of the Official Action rejects claims 1-68 under the doctrine of obviousness-type double patenting over claims 1-25 of U.S. Patent No. 6,023,308 to Takemura, in view of U.S. Patent No. 5,194,974 to Hamada et al.

As stated in MPEP § 804, under the heading "Obviousness-Type," in order to form an obviousness-type double patenting rejection, a claim in the present application must define an invention that is merely an obvious variation of an invention claimed in the prior art patent, and the claimed subject matter must not be patentably distinct from the subject matter claimed in a commonly owned patent. Also, the patent principally underlying the double patenting rejection is not considered prior art.

The Applicant respectfully traverses the obviousness-type double patenting rejection because the independent claims of the present invention are patentably distinct from the claims of Takemura either alone or in combination with Hamada. The Applicant respectfully submits that the Official Action improperly construes the scope of the claims of the present invention and the Hamada reference in connection with the term "during one frame." In the present invention, the period of applying a voltage that may be applied to a pixel electrode is variable in accordance with the desired tone. Specifically, the present invention includes a step of applying a voltage from a voltage supply line to a pixel electrode for a period during one frame, where the period is determined in accordance with a desired tone of a display. The claims of Takemura and Hamada do not teach or suggest this feature. In fact, the Applicant respectfully submits that the teaching of Hamada is opposite that of the present invention (see column 4, lines 22-37).

The Official Action concedes that Takemura does not teach a step of applying a voltage from a voltage supply line to a pixel electrode for a period during one frame, where the period is determined in accordance with a desired tone of a display (pages 2-

3, Paper No. 27). The Official Action asserts that Hamada teaches this feature, and that it would have been obvious to combine the claims of Takemura with Hamada. The Applicant respectfully disagrees.

Hamada appears to teach the following:

The electrode lines X and Y are selected by scanning at a short frame frequency, so that the first switching three-terminal element is made in the "on" state for a relative short period of time. However, owing to the charge stored in the storing capacitor the voltage is continuously applied to the gate of the second switching three-terminal element until the next signal is sampled, thereby maintaining the second three-terminal element in the "on" state. Since the charge stored in the storing capacitor is separated from the liquid crystal layer by means of the second switching three-terminal element, the charge is prevented from leaking which would otherwise occur through the liquid crystal layer. Thus, the charge is held for a longer period of time. This is important for maintaining a display of clear and non-flickering constant image on the screen. (Id.)

However, despite the assertion to the contrary in the Official Action, Hamada does not appear to teach or suggest a step of applying a voltage from a voltage supply line to a pixel electrode for a period during one frame, where the period is determined in accordance with a desired tone of a display.

Further, the Official Action asserts that the pending application is directed to an LCD semiconductor device (page 3, Paper No. 27). The Applicant respectfully submits that the scope of the claims of the present invention is not limited to an LCD but also is intended to cover other display devices such as an EL display device. For example, claim 1 is directed to an operation method of a semiconductor device.

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The Applicant respectfully submits that the subject application is patentably distinct from the claims of Takemura either alone or in combination with Hamada. Reconsideration of the obviousness-type double patenting rejection is requested.

Should the Examiner believe that anything further would be desirable to place this application in better condition for allowance, the Examiner is invited to contact the Applicant's undersigned attorney at the telephone number listed below.

Respectfully submitted,


Eric J. Robinson
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